



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,540	07/22/2005	Sahbl Belkhiria	05-208	5266
<div>34704      7590      06/14/2007 BACHMAN &amp; LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510</div>				
			EXAMINER GRAVINI, STEPHEN MICHAEL	
			ART UNIT 1749	PAPER NUMBER
			MAIL DATE 06/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/526,540

Applicant(s)

BELKHIRIA ET AL.

Examiner

Stephen Gravini

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-12, 14-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-12, 14-20 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 102***

Claims 2-6, 10, 14-16 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Landolt et al. (US 4,138,539). The claims are reasonably and broadly construed, in light of the accompanying specification to be disclosed by Landolt as comprising:

carrying out a polymerization reaction reactor by continuously conveying reactants and catalysts in a closed reactor continuously axially conveying polymerization to form a polymer gel, wherein the polymerization reaction is selected from the group consisting of bulk aqueous solution polymerization and (2) suspension polymerization at column 5 lines 34-52;

drying the resulting polymer gel reactor by continuously moving the polymer gel by means of a continuously moving bed of the polymer gel in a closed dryer at column 5 line 53 through column 6 line 32; and

discharging dried SAP fines at column 6 lines 33-57. Landolt also discloses the claimed moving bed closed dryer comprises an agitated vessel having at least one agitating shaft 2, wherein the shaft is heated additionally to the vessel to increase the heat transfer and drying efficiency of the dryer, drying of the polymer gel is carried out under at least one of the following conditions vacuum or in the heated air, inert gas, and steam at column 6 line 27, maturity of the polymer, is carried out in a first zone of the

closed dryer as shown in the figure, mixing into at least one of the closed polymerization reactor and the closed dryer an additive selected from the group consisting of monomers, comonomers solvents, or mixtures thereof at column 1 lines 5-66, recycling to at least one of the closed polymerization reactor and the closed dryer the dried SAP fines as shown in the figure, pressure lock chamber or gel cutting system location between the reactor and dryer or mixer at column 2 lines 11-48 wherein the disclosed pulverizing step is broadly and reasonably construed from the accompanying specification to anticipate the claimed gel cutting or mixer because both features will cut or mix gel.

***Claim Rejections - 35 USC § 103***

Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landolt in view of Coville et al. (US 5,891,254). Landolt is construed to disclose the claimed invention, as rejected above, except for the claimed condensing and recycling feature. Coville, another continuous production process of polymers, is construed to disclose a condensing and recycling feature at column 9 line 49 through column 10 line 20. It would have been obvious to one skilled in the art to combine the teachings of Landolt with the condensing and recycling feature, construed to be disclosed in Coville for the purpose of separation and recovery of desired processed reactants.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landolt. Landolt is construed to disclose the claimed invention, as rejected above, except for the claimed rotary valve or piston lock system associated with the pressure lock chamber and Urshell cutting system. It would have been an obvious matter of

Art Unit: 3749

design choice to one skilled in the art to provide a rotary valve or piston lock system associated with the pressure lock chamber and Urshell cutting system since the disclosed invention would be performed regardless of the type of pressure device used with the lock chamber.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Landolt in view of Gill (US 3,573,263). Landolt is construed to disclose the claimed invention, as rejected above, except for the claimed vacuum and partial cooling. Gill, another continuous production process of polymers, is construed to disclose a vacuum and partial cooling feature at column 3 lines 2-34 and as discussed under the background of the invention section of that reference. It would have been obvious to one skilled in the art to combine the teachings of Landolt with the vacuum and partial cooling feature, construed to be disclosed in Gill for the purpose of optimum low pressure processing of polymerization.

### ***Double Patenting***

Claims 2-20 and 22 are rejected on the ground of nonstatutory obviousness-type double patenting over claims 1-6 of U. S. Patent No. 7,045,581. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one skilled in the art to include SAP since both inventions function with the same structure regardless of whether SAP is claimed.

### ***Response to Arguments***

Applicant's arguments filed May 8, 2007 have been fully considered but they are not persuasive.

*anticipation*

Current Office practice guides examination such that claims are to be reasonably and broadly construed, in light of the accompanying specification. In this application, it is urged that the claims should be more narrowly construed than guided by current Office practice. Specifically it is argued that dependent claims 2, 18, and 19 set forth differences from the prior art. As rejected above, Landolt discloses the claimed moving bed closed dryer comprises an agitated vessel having at least one agitating shaft 2, wherein the shaft is heated additionally to the vessel to increase the heat transfer and drying efficiency of the dryer at column 6 line 27. It is believed the anticipatory rejection is proper and maintained.

*obviousness*

Claims 18 and 19 are construed to be obviated by Landolt in view of Gill wherein Gill, another continuous production process of polymers, disclose as vacuum and partial cooling feature at column 3 lines 2-34 and as discussed under the background of the invention section of that reference and as rejected above. It is believed the obviousness rejection is proper and maintained.

*double patenting*

The double patenting rejection is not traversed in response to the most recent Office action, such that the rejection is believed proper and maintained.

**Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Rinehart can be reached on 571 272 4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3749

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SMG  
June 5, 2007

